



AIR QUALITY BUREAU
ATTN: Application Log in
7900 Hickman Rd., Suite 1
Urbandale, IA 50322

IOWA DNR Air Construction Permit Application

Form EU4: Cooling Tower Information

Please see instructions on the reverse side

Company Name:

COOLING TOWER IDENTIFICATION AND DESCRIPTION

	Tower 1	Tower 2	Tower 3	Tower 4
(1) Emission Unit Name				
(2) Emission Unit ID Number				
(3) Stack/Vent ID Number				
(4) Tower Type (N: New, U: Unpermitted, M: Modification)	<input type="checkbox"/> N, <input type="checkbox"/> U, <input type="checkbox"/> M	<input type="checkbox"/> N, <input type="checkbox"/> U, <input type="checkbox"/> M	<input type="checkbox"/> N, <input type="checkbox"/> U, <input type="checkbox"/> M	<input type="checkbox"/> N, <input type="checkbox"/> U, <input type="checkbox"/> M
(5) Current Permit Number				
(6) Tower Construction Date				
(7) Tower Manufacturer				
(8) Tower Model Number				
(9) Number of Cells in Tower				
(10) Tower Maximum Water Flow Rate				
(11) Measured TDS Content (if known)				
(12) Do You Use Additives in the Water If Yes, Provide MSDS Sheets for Each Additive	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes

CONTROL EQUIPMENT INFORMATION

(13) Control Equipment	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
(14) Control Equipment ID Number				
(15) Control Equipment Efficiency				

STACK/VENT INFORMATION

(16) Cell Height from the Ground (ft)				
(17) Distance from Property Line (ft)				
(18) Cell Stack Size (in Dia. or in.X in.)				
(19) Stack Discharge Style				
(20) Cell Rated Air Flow Rate (<input type="checkbox"/> acfm <input type="checkbox"/> scfm)				
(21) Total Rated Air Flow Rate (<input type="checkbox"/> acfm <input type="checkbox"/> scfm)				
(22) Exhaust Exit Temperature (°F)				

OPERATING SCHEDULE

(23) Actual Operation (hours per year)				
(24) Maximum Operation (hours per year)				

REQUEST FOR PERMIT LIMITATIONS

(25) Are you requesting any permit limits? ☐ No ☐ Yes. If yes, write down all that apply

Tower Served	Operation Hour Limits:	TDS Limits (ppm):	Material Usage Limits:	Other:
Tower 1				
Tower 2				
Tower 3				
Tower 4				

Rationale for Requesting the Limit(s):

Instructions for Form EU4: Cooling Tower Information

This form is intended for cooling towers only and may be used in place of forms EU and CS.

Please provide your company name. **USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.**

Cooling Tower Identification and Description:

- (1) Provide the name of the emission unit, such as "Tower 1," "Cooling Tower," etc.
- (2&3) Provide the identification number for the emission unit and emission point. The ID number should match ID numbers used on other construction permit applications and within this application. It can be any number. However, if you submitted an operating permit application, the numbers used for identification purposes in this application should be consistent with the ID numbers used in your operating permit application.
- (4) Mark the type of your cooling tower, such as a new cooling tower to be constructed, an unpermitted existing cooling tower (as-built) applying for a permit for the first time, or a permitted source to be modified.
- (5) If this is a modification to a permit, provide the current construction permit number of the cooling tower.
- (6) Provide the date of construction, month, day, and year in which construction or modification was commenced.
- (7&8) Provide the manufacturer's name and model number of the emission unit. If the unit is custom-designed or homemade, indicate so.
- (9) Provide the number of cells in this cooling tower.
- (10) Provide the maximum water flow rate, and units of that rate, of this cooling tower.
- (11) If you have data regarding the Total Dissolved Solids (TDS) content of the water, please provide that data.
- (12) If any additives are used in the water (biocide, anti-corrosion agents, etc...) provide a MSDS sheet for each additive.

Control Equipment Information

- (13&14) If there is control equipment associated with this cooling tower, provide the identification number of the control.
- (15) Provide the control efficiency of the control equipment.

Stack/Vent Information

- (16) Provide the height of the top of the cell(s) above ground.
- (17) Provide the distance between the cooling tower and your nearest property line.
- (18) Provide size of the cell openings. It could be inches diameter for circular openings, or inches times inches for rectangular, square, or other shapes.
- (19) Indicate the discharge style. The discharge style could be:
 - VR: vertical, with obstructing rain cap.
 - V: vertical, with unobstructing rain cap or without rain cap.
 - D: downward discharge.
 - H: horizontal discharge.
- (20&21) Indicate the rated exhaust flow rate in actual or standard cubic feet (check the appropriate box) for each cell and the entire cooling tower.
- (22) Provide the temperature of the exhaust at the cooling tower in degrees Fahrenheit.

Operating Schedule

- (23) Provide operation schedule of the tower under a general condition.
- (24) Provide schedule for projected maximum operation.

Request for Permit Limitations

- (25) If you wish to have permit limits placed on the cooling tower, mark "Yes." Then, check each type of limit that applies to this emission unit and write down the requested limit. For example, operation hours limits may be in terms of hours per year, material usage limits may be in gallons of additive per year. If requesting a permit limit(s), indicate the rationale for the requested limit. This helps the DNR and the applicant determine whether the limits are necessary, and if they will accomplish the desired purpose.